DOCUMENT RESUME

ED 074 627 95 EA 005 074

AUTHOR Williams, Charles; Nusberg, Charlotte
TITLE Anticipating Educational Issues Over the Next Two Decades: An Overview Report of Trends Analysis. Research Memorandum No. 18.
INSTITUTION Stanford Research Inst., Menlo Park, Calif. Educational Policy Research Center.
SPONS AGENCY National Center for Educational Research and Development (DHEW/OE), Washington, D.C.
REPORT NO EPRC-2158-203; SRI-2158
PUB DATE Mar 73
CONTRACT OEC-0-72-5016
NOTE 78p.

EDRS PRICE MF-$0.65 HC-$3.29
DESCRIPTORS *Educational Change; Educational Innovation; *Educational Planning; *Educational Policy; Educational Trends; *Futures (of Society); Prediction; Social Change; Sociocultural Patterns; Socioeconomic Influences; *Trend Analysis
IDENTIFIERS *Federal Role

ABSTRACT

The basic thesis of this paper is that change in educational policy is brought about mainly by the impact of external events in the larger society, and that discontinuities in educational policy are likely to increase as the pace of socioeconomic change accelerates over the next two decades. The authors contend that educational policy based merely on modifications -- extrapolations or refinements -- of existing programs will prove totally inadequate to meet the challenge. The paper describes those educational trends and broader societal patterns which seem likely to emerge and have profound implications for the assumptions and direction of education. It concludes with several possible initiatives that planners in the U. S. Department of Health, Education, and Welfare could undertake to prepare the groundwork for realistic educational assumptions and programs. (Author/DN)

POLICY RESEARCH REPORT

A Policy Research Report is an official document of the Educational Policy Research Center. It presents results of work directed toward specific research objectives. The report is a comprehensive treatment of the objectives, scope, methodology, data, analyses, and conclusions, and presents the background, practical significance, and technical information required for a complete and full understanding of the research activity. The report is designed to be directly useful to educational policy makers.

RESEARCH MEMORANDUM

A Research Memorandum is a working paper that presents the results of work in progress. The purpose of the Research Memorandum is to invite comment on research in progress. It is a comprehensive treatment of a single research area or of a facet of a research area within a larger field of study. The Memorandum presents the background, objectives, scope, summary, and conclusions, as well as method and approach, in a condensed form. Since it presents views and conclusions drawn during the progress of research activity, it may be expanded or modified in the light of further research.

RESEARCH NOTE

A Research Note is a working paper that presents the results of study related to a single phase or factor of a research problem. It also may present preliminary exploration of an educational policy issue or an interim report which may later appear as a larger study. The purpose of the Research Note is to instigate discussion and criticism. It presents the concepts, findings, and/or conclusions of the author. It may be altered, expanded, or withdrawn at any time.

STANFORD RESEARCH INSTITUTE
Menlo Park, California 94025 · U.S.A.

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

ED 074627

SRI Project 2158

March 1973

Educational Policy Research Center

CHARLES WILLIAMS
DEPUTY DIRECTOR
CENTER FOR THE STUDY OF SOCIAL POLICY* AND
EDUCATIONAL POLICY RESEARCH CENTER
WITH CHARLOTTE NUSBERG OF THE CENTER STAFF

Research Memorandum ~~17~~ 18

EPRC 2158-203

ANTICIPATING EDUCATIONAL ISSUES OVER THE NEXT TWO DECADES: AN OVERVIEW REPORT OF TRENDS ANALYSIS

Prepared for:

NATIONAL CENTER FOR EDUCATIONAL
RESEARCH AND DEVELOPMENT
U.S. OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

CONTRACT OEC-0-72-5016

*Also based on the work of Willis W. Harman, James Guthrie, T. Thomas, Mark Markley and other members of the Educational Policy Research Center.

EA 005 074

CONTENTS

INTRODUCTION 1

ANTICIPATING EDUCATIONAL ISSUES OVER THE NEXT TWO DECADES . . 4

Background 4

The 1950s 5

The 1960s 6

The 1960s Give Way to the 1970s with Marked Contrasts 9

Framework for Policy Makers 15

Emerging Social and Economic Patterns 17

Major economic challenges lie ahead, perhaps leading to a restructuring of economic institutions with resulting educational implications 17

A national growth policy will probably emerge and begin to take hold 22

Teachers, parents and students become stronger constituents to deal with 41

THE EMERGING CLIMATE FOR EDUCATIONAL POLICY ISSUES 50

Public Confidence 50

Reordering Educational Priorities within Existing Resources . 52

Education Becomes Less Concentrated in the Existing School System 54

POLICY INITIATIVES FOR THE OFFICE OF EDUCATION 56

REFERENCES 60

EXECUTIVE SUMMARY

Until very recent years the policy of the United States Government with regard to public education was one, essentially, of encouragement and exhortation addressed to the states. The original Department of Education (now the U.S. Office of Education) from its foundation in 1867 until the 1960s (the exceptional case of vocational education aside) was not much more than the institutional expression of the encouragement and the medium of exhortation. Its substantive activities were primarily statistical.

However, following the 1954 school desegregation decisions and the rise and near-fusion of the civil rights and anti-poverty movements of the 1960s, public education came to be viewed as the key element in combatting racial injustice, providing equality of opportunity, and eliminating poverty in the United States. Within a brief span of years the Federal government developed a whole constellation of programs designed to achieve those ends and--while not notably effective--they have had the result of significantly and, perhaps inextricably, involving the Federal government in the support and direction of the educational system in a manner and scope that would have been considered impossible two decades ago.

Yet this involvement was not preceded by nor has it produced a cohesive Federal education policy. There now exists a network of programs which form a system--that is, they are highly (and sometimes awkwardly) inter-related--but these programs do not form a coherent policy. One of the most important tasks of the Federal government during the next decade will be the creation of such an educational policy. The thrust of the "new

federalism" is to shift the location for some operational decisions from the Federal to the state and local level, but this shift only intensifies the need for well-integrated Federal educational policy. Passing control to state and local educational agencies requires that much policy that was previously implicit in program requirements be carefully preplanned and made explicit.

A basic theme of this paper is that changes in educational policy are not normally initiated within the educational system. External pressures--supreme court decisions, the "baby boom," Sputnik, the war on poverty, the movement for community control, concern with youth unemployment, the movement of women into the labor force--have resulted in more and more basic changes in the educational system than have the pedagogical studies of professional educators. This will continue and if, as is assumed here, the pace of socioeconomic and political change accelerates over the next two decades, these pressures will be greater, less likely to be anticipated, and productive of even more severe discontinuities than heretofore experienced. An educational policy based merely on projections or refinements of current programs is totally inadequate to meet the challenges that lie ahead.

The following are some of the trends and developments that will provide the context in which educational policy will have to be made over the next two decades:

(1) A restructuring of economic institutions can be expected, spurred on by international economic competition, technological developments, and environmental and "growth" concerns. The direction of this change is still not clear; several plausible alternatives are visible, including (a) the cybernation of the production process permitting much greater affluence, yet requiring a much more sophisticated level of skills in the work

force; (b) a decline in economic growth as productivity increases fall off, corporations resettle abroad, the U.S. trade balance continues to deteriorate, and the United States becomes increasingly resource-dependent on others, leading to a general retrenchment of the resources available for education and other domestic priorities; and (c) the emergence of a postindustrial society in which the present competitive, individualistic ethic is replaced with a humanistic one and the effectiveness of societal institutions is measured by their success in promoting self-actualizing values.

(2) The desire of many Americans, as judged by polls, to live away from large metropolitan areas, the support of significant interest groups for a population distribution policy, and the increasing interest in this subject by members of Congress, make the adoption of a national growth policy a strong possibility. At a time when demographic patterns point to a leveling off of birth rates, a substantial shift in population concentrations would result in a good part of the educational budget continuing to be devoted to growth purposes, particularly in terms of capital outlays. At the same time the development of new towns and the encouragement of existing growth centers provide unparalleled opportunities for educational innovation.

(3) The deterioration of cities will continue with the exodus of the middle class to the suburbs. Cities will become concentrations of the dependent--e.g., children, the elderly--with decreasing revenue sources and yet greater requirements for social expenditures. Large city schools find themselves in completely untenable financial situations and a major restructuring of school finance must take place, most likely with the states taking over an ever increasing role in educational finance.

(4) Americans will become tolerant of 5 to 7 percent unemployment rates and officially the government will move away from a full employment policy. Increased competitiveness for relatively scarce jobs will encourage a shift to education as a life-long process in order to update or learn new skills and will shift priorities in secondary and higher educational institutions to vocational and career-oriented curricula. The major gainers will be two-year colleges and vocational institutes which will increasingly become an automatic extension of the secondary school process.

(5) There is a real danger of an oversupply of "academically" skilled labor in relation to the needs of the economy. Although the economy is rapidly becoming white collar and service-oriented, requiring more sophisticated skills, Department of Labor projections show that most of those jobs will still require less than full baccalaureate or graduate degree. Yet larger numbers of students are graduating from colleges every year. At a time when all workers, white and blue collar, are searching for greater meaning on their jobs, worker discontent will be likely to be aggravated even more by the fact that many will be working below their capacity and training.

(6) Demographic patterns indicate that the elderly will constitute a larger proportion of the population, perhaps even up to 25 percent if radical medical advances take place. The inadequacies of public and private pension plans to provide other than poverty existences for a large number of the elderly, combined with an extension of the number of functional years, will lead an increasingly larger proportion of the elderly to postpone permanent retirement and seek employment. Schools and businesses will have to provide training opportunities for those desiring

second and third careers. A number of the elderly, who will be increasingly well educated, will want to further their education for self-actualizing purposes, adding to the diversified needs schools will be expected to meet.

(7) The leisure society, if it emerges at all, will do so more in terms of restructured work weeks, permitting three and four-day weekends, than in a radical reduction of the number of hours worked. Two possibilities suggested by this development are that education will increasingly be in demand to further either career objectives or leisure desires. There may also be some pressure on schools to adjust their hours to the wishes of parents who want the whole family together during their leisure time.

(8) Despite the many new demands that may be placed on the educational system, the availability of much additional funding is doubtful. Voters at the local level have already revolted against raising taxes and there are constraints on Federal expenditures. The prospects of fiscal dividends even at times of relatively full employment are dim and demands on the Federal budget will grow. Education will increasingly be competing with other domestic social programs for priority consideration. Expectations of some educators for greatly increased Federal funding are likely to be frustrated; even if expenditures were raised, the instability of Federal funding could play havoc with local school planning.

(9) As revenue sharing and decategorization of Federal programs continue, some major scandals are likely, which will result in a demand for some type of post-audit performance standards. Freedom of choice for local communities would still be preserved in their ability to choose program expenditures, but the national

interest would be preserved by requiring minimum performance standards in those programs chosen. Efforts to develop effective program indicators for performance ratings should be a necessary concern of Federal evaluators.

(10) More people will acquire the skills and knowledge that we are used to thinking of as "education." However, formal educational institutions have lost their monopoly in providing such learning; increasingly larger shares will come from the media, from business and industry, and from government institutions. Also, education will cease to make sense as a one-time effort that prepares an individual for the whole of his adult life; instead, there will be a recognition of the value of dropping into and out of school throughout life as personal needs and interests change, and as life situations change. Academic recognition will be extended to the learning provided by nonacademic sources, such as employment experience and community experience. The labor force will be less dependent on obtaining traditional academic degrees as credentials. At the same time, the path to obtaining degrees will be widened; ways will be found for everyone who wants it to have access to some institution of higher learning, and advantage will be taken of new technology to bring education to the home and individualize curricula. Although formal educational institutions may have lost their monopoly in education, educators have the opportunity to exercise real statesmanship by providing leadership to other institutions engaged in educational functions.

(11) Teachers, parents, and students all become stronger constituents for the educational system to deal with. A national teacher's union with greatly increased bargaining power seems likely. As the stakes become higher, collective bargaining will

be shifted to the regional and state level, displacing certain functions of local school boards and expediting their loss of an important power. This development will conflict with the desire of parents and local communities to exercise greater control over their schools; a public backlash against teacher demands for higher salaries, or for preserving working conditions that parents wish to change, becomes a strong possibility. If teachers come to insist on featherbedding practices at a time when population growth is leveling off and educational budgets are strained, administrators may be more receptive to introducing labor-saving instructional technology into schools; this may become a major source of contention in collective bargaining sessions. Parental power will increase and the possibility exists that, as disposable income rises, parents will seek other alternatives to the public school system if educational expectations for their children are not met. The business sector, for example, may rise to the occasion and develop its own schools if a demand for them exists.

Students too have made themselves felt as a potentially explosive constituency that can no longer be taken for granted. The deferment of adulthood and the resulting emotional strains for students will create a major challenge for the schools. However, the need to find opportunities for earlier introduction to the world of work and adults is a task for the entire society rather than the schools alone.

(12) Problems of the educationally disadvantaged, which in the eyes of the general public seem to be linked with race, will become viewed more as a function of socioeconomic class. Since integration based on class considerations involves much larger numbers of children than racial desegregation ever did, and

would thus affect a much greater proportion of American communities, political opposition by the middle-class majority is likely to be very strong against busing for "class" balance. Moreover, the relative ineffectiveness of compensatory education to date does not portend well for its continued or augmented support. The failure of both of these methods to ameliorate the plight of the educationally disadvantaged threatens to solidify disparities in this country.

(13) The assumption behind current compensatory education programs will continue to be attacked as research uncovers the importance of noneducational factors in affecting student achievement. Attempts to assure equality of opportunity will shift from seeking comparability in achievement levels to providing individualized curricula and teaching methods with the purpose of developing at least minimum competency levels in cognitive and affective skills.

The present framework for the formulation of educational policy is inadequate--both in concept and in methods--to accommodate the future foreseen. Because this is an inadequacy of basic structure and processes, program adjustments, no matter how massive, will not compensate for the inadequacy. What is needed is not additions to the present framework, but a rethinking of education in America. Present policymaking methods and concepts do not provide guidance on what types of institutions and programs will be suitable for the new American education process, or on how to interface American education effectively with the larger environment of American life.

In addition to rethinking the formulation of educational policy, it will be necessary for educators to develop a new kind of statesmanship. If the American educational system is not to be thrown away--a real

possibility that would involve great and needless damage at a high social, economic, and psychic cost--then some agency must develop the ability to guide the growth of the new American educational process in such a way that educators, students, and the nation lose as little as possible from the change. The statesmanship needed to provide such guidance is of a high order, but not outside the traditions of education even though it may not have been necessary in recent decades.

Four policy initiatives for the Office of Education suggest themselves:

(1) A major research effort should be launched with the objective of determining the alternative directions American society may take and the values, roles, and forms the educational process could assume in order to facilitate or avert the unfolding of particular realities. This effort should address the following central questions:

   (a) What do the behavioral, biological, and social sciences tell us about the needs and capabilities of man?

   (b) What values do we wish to support through the educational process?

   (c) What societal groups require special services and how can education play a role?

   (d) How does the educational process complement broader societal forces and activities?

   (e) What resources--knowledge, manpower, institutional support, money, etc.--can we amass to transform the education process?

   (f) If we were to start over again, what kind of educational system would we design?

(2) A basically new strategy for attaining the objectives of compensatory education is required. These objectives cannot be achieved in the classroom alone; rather, a total environmental approach is required. Educators must acknowledge this reality

and structure their activities to complement broader societal efforts if they are to achieve even narrow educational objectives.

(3) Even though enrollment levels in the school system may stabilize, the demands on education for broader opportunities in higher education, for more early childhood programs, and for capital outlays in new population centers will increase the total demand for funding related to education. Not only will there be greater competition for the education dollar, but education itself is likely to have to compete with increasing health demands and welfare demands for the tax dollar. It appears unrealistic to expect much greater funding support for education; indeed, contingency plans should be developed not only for the situation of little or no growth in funding for education, but also for instability in allocated funds (especially Federal funds).

(4) Detailed alternative scenarios should be worked out of what the American economy and society will probably look like two decades from now in terms of population levels and distribution, age composition, types and locations of economic institutions, job skills required, and so forth. The results would be used to test the sensitivity to such developments of decisions on school variables such as curricula, capital outlay requirements, and educational philosophy concerning the objectives and role of education.

Such a set of analyses should go a long way toward assuring that educational policy makers are not caught unawares by societal developments but will instead be in a position to offer imaginative alternatives to pressing problems.

INTRODUCTION

This paper has been written for the Office of Education of the Department of Health, Education and Welfare and is broadly based on the trend analyses being conducted by the Educational Policy Research Center of the Stanford Research Institute.

The basic thesis of this paper is that change in educational policy is brought about mainly by the impact of external events in the larger society, and that discontinuities in educational policy are likely to increase as the pace of socioeconomic change accelerates over the next two decades. Educational policy based merely on modifications (whether extrapolations or refinements) of existing programs will prove totally inadequate to meet the challenge of the coming decades.

The paper then describes those educational trends and broader societal patterns which seem likely to emerge and have profound implications for the assumptions and direction of education.

It concludes with several possible initiatives that DHEW planners could undertake to prepare the groundwork for realistic educational assumptions and programs.

Our analysis of the emerging patterns and discontinuities as they affect education indicates the following general policy environment in which decisions will be made.

The belief will spread that the educational system is failing; the possibilities of punitive public backlash in the form of withholding resources from the educational community are great. It is conceivable that the monopolistic position of the schools will be substantially eroded

and that the insistence on alternatives to the public school system will gain in political force. The rate of increase in funding for education will decline and funding sources will become more unstable in terms of dependability. At a time when demands on the educational system have never been greater, the educational establishment, influenced by demands on the part of teacher unions, will become more rigid and resistant to change.

If revenue sharing and block grants become commonplace in Federal/state relations, a need will arise for measurable performance standards and a comparative evaluation of the managerial and academic effectiveness of different school systems.

There will be a continuing shift first from emphasis on inputs to one on output effectiveness and efficiency measures. If demands for efficiency measures increase because of scarcity of resources, it is very possible that we will retreat to simplistic measures of reading and other cognitive skills.

Pressure for racial integration in schools will diminish. It is already clear that school integration is ineffective as a means of ultimately accommodating the socioeconomically deprived. Emerging metropolitan trends and possible population redistribution policies make it much more likely that socioeconomic racial segregation as opposed to jurisdictional racial segregation will continue to intensify in the forthcoming decades.

If one assumes the patterns discussed in this paper will become a reality in the next two decades, it is possible to examine present program and policy assumptions and judge their relevance to emerging social needs.

Such an evaluation was not possible within the scope of this paper; it would be an extensive but feasible task. There are, however, a number of important policy implications which appear worthy of note. We believe that many of the assumptions on which the majority of HEW's educational

program expenditures are based are essentially inadequate and will prove themselves to be so in the face of socioeconomic dislocations and discontinuities occurring in the next two decades. For example, there is an urgent need for wholly new conceptual alternatives if the objectives of compensatory education are to be achieved. While few yet question the goals of compensatory education, present approaches for reaching those objectives appear less and less valid.

ANTICIPATING EDUCATIONAL ISSUES
OVER THE NEXT TWO DECADES

Background

At the state and local level, the same situation prevails; independently conceived educational policies react with each other in an unplanned and sometimes unforeseen fashion. The result is a system of interrelationships which could be greatly rationalized were more serious thought given to the second-, third-, and even fourth-order consequences of policy decisions. One of the most fundamental issues of the next decade will be how to evolve from this state toward a coherent network of integrated educational policies.

To understand the need for an integrated network of decision-making, we must consider developments of the past two decades which have greatly increased the Federal role in education and exacerbated the relationships between the educational process and societal problems.

In the past few decades, innovations in education have generally occurred in response to societal pressures upon the schools rather than from any reforms generated within the educational system. In the last two decades this tendency has been particularly visible as the pace of change in society accelerated. Many of the dominant themes of educational policy emerged unexpectedly through the impact of external forces upon the school system, although most of these events and pressures were predictable if policy makers had employed a broader societal context as opposed to the narrower educational perspective.

The 1950s

The 1950s brought at least three major and lasting policy shocks* to the nation's school system--all of which served to highlight how intricately educational policies are related to broader values and social, economic and technological trends.

One set of shocks in the 1950s evolved from Supreme Court decisions which: (1) affirmed that education is a basic human right essential to a real opportunity for a reasonable quality of life, liberty, and pursuit of happiness (a recognition of the growing importance of education to individual happiness and functioning in a technically complex society); and (2) legitimized a growing body of social science research, spurred by Gunnar Myrdal's massive study on race, which showed that racially segregated school systems cannot be equal. These actions turned the debate about equality of education into constitutional issues. They provided a new rationale for Federal intervention into school systems and educational policy. No longer was the rationale for a publicly supported educational system primarily dependent upon the Jeffersonian principle that an informed and literate citizenry is essential if a democracy is to function.

Another set of shocks occurred from two external evaluations of the effectiveness of American education. Rudolph Flesch's book Why Johnny Can't Read was one of many that aroused public concern about educational results. Russia's launching of Sputnik became the focal point for another public indictment of our educational effectiveness in the sciences, mathematics and engineering. Admiral Rickover personified these caustic

---

*We shall be using shocks in this paper in the sense that planning and operational policies for schools did not reflect the emerging societal forces although particular educators may well have been aware of significant societal trends.

criticisms. The nation's very survival was felt to be threatened because the educational system had not kept pace with the times. Moreover, it was not even performing well for many in the most basic requirement of literacy--reading.

A third set of shocks resulted from the need to accommodate the Baby Boom of the 1940s and 1950s. Rapid expansion of educational plant was obviously required and easily justified. Satisfactory economic growth made possible a rapid expansion of educational expenditures. The high value traditionally placed upon education made the politics of this growth period easy. Few voices were lifted to challenge the educators' statements of needs. The private, especially the Roman Catholic parochial, school system grew at an even faster rate than the public.

These and other developments throughout the 1950s stimulated a spirit of reform and expansion resulting in increased levels of Federal educational spending, more demanding curriculums, more and better teachers and facilities, demands for more rapid application of technological hardware in schools, and a great deal of concern that the system be flexible enough to permit the gifted child to develop fully.

The 1960s

While the 1960s saw a continuation of the new trends of the 1950s, it was also a decade of even more wrenching discontinuities; yet, these highly predictable developments caught educational policy makers by surprise.

The 1960s began with educators in an expansive and self-confident mood. Few permitted themselves serious doubts that education as they knew it was good, that the educational system would function well to fulfill the nation's aspirations, and that at long last they had achieved the recognition in national policy which would assure the continued flow

of ever greater resources into an educational system increasingly valued by the society it served. But the dynamics of the 1960s were to bring marked changes in all of these assumptions.

The publication of The Other America by Michael Harrington in 1962, together with the increased visibility of rapidly growing urban ghetto schools and the slow pace of integration, helped further to turn traditionally local educational matters into national political issues. Great Society legislation has spawned a multitude of programs pouring billions more into education, particularly into the "have-not" schools, in the belief that compensatory education is the key to breaking the poverty cycle. It was assumed that socioeconomic objectives were achievable through school reform if sufficient resources were committed. As a result, the problem was viewed as one of legislation and budget priorities. Preschool programs, work-study programs, adult education, various forms of remedial education, and experimentation with novel educational devices sprang up with surprising speed. Schools even began to reach out to the community in the belief that their efforts could alleviate the broader problems of minority groups and the disadvantaged.

Meanwhile, for reasons that manpower economists find inexplicable, employers relied more and more heavily on academic credentials, sometimes discriminating against those who were academically less qualified regardless of the real requirements of the job. Credentialism emerged as a significant socioeconomic problem and led to long overdue examination of the direct relationship between educational investment and personal and national economic well-being claimed by the human resources development school of educators and economists.

Post-secondary education mushroomed. The massive systems of state universities grew and campuses of 20,000 to 30,000 students came into being. The movement to democratize and extend higher education to the

masses gained momentum, with little effective questioning of the underlying assumptions implied or of its ultimate impact upon the character and quality of higher education itself. A significant expression of the movement was the rapid expansion of the junior and community college network.

The great quantitative expansion of the baby boom of the 1940s was augmented still further as larger proportions of the young were enrolled in educational activities at both ends of the traditional school system, i.e., post-secondary and pre-elementary school programs. Between 1950 and 1965 the ratio of college graduates entering graduate school increased from one in six to one in two,[1] and not all were trying to escape the Draft.

Throughout these two decades the importance of education steadily increased in the eyes of a growing variety of stakeholders. Education became a formal tool of national policy for producing skilled manpower and knowledge necessary to further domestic and international objectives and to secure constitutional guarantees for individuals. Parents and social leaders alike saw education as the key to economic and social mobility. These attitudes and values were heavily stimulated not by educators, but by broader social and economic developments without which such attitudes would never have gained dominance. For example, with the continued conversion of the economy to an urban, industrial form, parental incentives for immediate economic productivity of children (which had often characterized the agricultural and early industrial sweat shop age) were almost eliminated in favor of further education--since there could hardly be economic productivity without at least minimum levels of literacy and formal diplomas.

The 1960s Give Way to the 1970s with Marked Contrasts

With the advent of the 1970s, marked contrasts to the educational policy trends and issues of just ten years previous were evident. In these contrasts are rooted many of the dynamics for policy issues to be confronted during the next two decades. A brief mention of a number of these contrasts will help set the stage for further discussion of these issues.

The confidence and optimism that we knew what to do have seriously eroded, even within the educational community itself. Many earlier assumptions and values are currently being seriously challenged:

(1) The critical shortage of technical manpower and the resulting millions allocated for special fellowships has turned into the nightmare of overtraining, overspecialization, and oversupply. The nation has yet to find ways of reorienting its basic economic structure to accommodate the supply it now has and continues to produce. It is estimated that the labor force generally will increase 20 percent by 1980--80 percent of which won't require college degrees--yet those holding bachelor's degrees will increase by almost 50 percent, those with master's degrees by 100 percent, and those with doctorates by 115 percent.[2] Allan M. Cartter estimates that in the next 15 years, a surplus of up to 120,000 PhDs will be produced.[3]

(2) Cries for more and better graduate schools, basic research, and stipends for gifted students have given way to pleas for general Federal support of higher educational institutions and to a genuine concern for whether or not the private colleges and universities can survive financially. Expansive planners who called for millions of new slots for college students just two or three years ago are now searching for explanations

of why the present capacity is not fully used and why some colleges are failing for lack of students and funds.

(3) The critical shortage of teachers has given way to concern about a surplus of teachers, even while more funds are poured into the teacher training pipelines for production of even greater surpluses. The National Education Association estimated that 234,100 new graduates would compete for 115,900 jobs this year.[4]

(4) The concern for meeting expansion demanded by the Baby Boom has shifted from the elementary to the secondary and to the post-secondary school levels. An awareness now exists that new population trends are not sustaining the overall projected population growth of even three or four years ago. The Bureau of the Census has steadily readjusted its population predictions downward.

(5) Study after study, such as the Coleman Report, the Mosteller/Moynihan study and most recently Christopher Jencks' work, casts doubt upon the validity of the policy assumptions behind compensatory education. The entire rationale for billions of dollars of expenditures may be essentially destroyed and there does not now exist a basic alternative strategy, much less a set of alternative program initiatives, which a different and possibly more realistic strategy would require.

(6) The youth revolt of the 1960s has resulted in a major new political constituency to be dealt with--the students themselves. Their judgment about the relevance of their educational experience and demands for change sent shock waves through the system--although basic reforms seem not to have resulted.

(7) With the assistance of members of the educational community who had begun to doubt the effectiveness of the educational system, and with the backing of liberal efforts toward participatory democracy and community involvement, parents and advocates (especially parents and advocates of the disadvantaged) began to demand that control of the educational system be wrested from professional educators who were perceived as indifferent, and that the educational system become effectively accountable to the community at large. The result is that political and educational policy leaders face new and diverse constituencies who demand satisfaction. Education seems to be reaching the stage when it is regarded as too important to be left to the professionals and to traditional vested interest. Furthermore, the force of educational consumerism has only begun to be felt.

(8) Concern for the support of the gifted child has given way to the concern for equality of educational inputs and more recently of achievements or outputs. Tracking systems and other forms of differentiating achievement have been systematically condemned and undermined. Some educators and sociologists are beginning to stress the noneducational factors which seem to affect achievement more strongly than any educational inputs.

(9) In the vigorous pursuit of narrowly perceived program objectives, the educational system found itself running against deeply felt values and beliefs--a new situation for American education. Forced racial balances have been prescribed and the sanctity and cherished value of neighborhood schools have been threatened by large, consolidated complexes, busing, and the potential constitutional overthrow of local jurisdictional differences in per capita educational expenditures. The perceived willingness of educational leaders to permit these developments--indeed,

to encourage them--has led to new political dynamics. Witness, for example, the rapid transformation of positions on busing as voter attitudes solidified against it.

(10) In addition to doubts about the effectiveness of programs for compensatory education, evaluation research is now casting doubts upon many long cherished beliefs within educational policy. For example, the significance of the student-teacher ratio has been called into question; the possibility that teacher expectations may be more significant to student achievement than student abilities has been raised; employers wonder why holders of high school diplomas cannot read and perform even the most basic calculations; while at the other end of the spectrum, employers of PhDs wonder why the new graduate seems equipped only to teach and perform basic academic research, rather than move directly into practical job performance. The case is being made that the educational system is failing even in its most fundamental functions, not to mention destroying the faith that it could solve deeper socioeconomic problems, which was the expectation just five or so years ago.

By the beginning of the 1970s, even those within the educational community who had studied it from an evaluative standpoint began to equate some schools with prisons, to state that the public school system was incapable of the reforms needed to capitalize upon educational technology, and to advocate such schemes as voucher systems in the conviction that the only hope for innovation and reform of the type demanded was to break the monopoly of the public schools. Concepts such as "schools without walls" are advocated by many. A few, like Ivan Illich, even support the abolition of schools as we know them today.

(11) Teachers have been unionizing at an increasing rate, leaving behind the traditional image of the teacher as an underpaid, selfless professional interested purely in the welfare of children, and striving for such traditional labor union benefits as increased bargaining power and recognition, increased salaries, and improved working conditions. One result is that an adversary situation has solidified between teachers and administrators much like the adversary situation between labor and management. Another result is that the impetus for unionization (response to a perceived threat) tends to be forgotten and the union becomes viewed as just another selfish group with no regard for the benefit of society as a whole.

(12) Shifting public attitudes began to be noted in a variety of ways but perhaps none so tellingly as the decline in the approval of bond issues for education. In the early 1960s requests from educators for more funds elicited immediate support. By the middle of the 1960s, school bond issues were being defeated at an unprecedented rate (in 1971, only 46.7 percent of all bond issues voted on were approved, consolidating a progressively downward trend).[5] By the end of the 1960s and early 1970s, the public was even willing to close some schools for part of the year if necessary rather than agree to additional tax levies for operating expenses.

(13) The belief that schools are the principal educational institutions is giving way in the emerging "information age" to an awareness that the school system is only one and perhaps not even the main educational force.

(14) Serious questions are being raised as to whether or not the school system is a viable means of credentialing for participation in the labor force and performing other posteducational adult roles.

(15) There is a growing concern about the increasing costs of education. The national bill for education has now reached a significant proportion of the entire GNP. The growing visibility of increasing expenditures coincides with a rising suspicion that funds are not well invested and with a union movement making for a classical form of cost-push inflation.

(16) The optimistic and conventional wisdom of the 1960s was that Federal expenditures could and should rapidly grow for public goods and social services. Federal fiscal managers of the 1960s discussed fiscal defense dividends and the ways in which the Federal revenues could be increased through economic growth and full employment rather than through tax increases. By the 1970s the idea of defense dividends was largely seen as an illusion and the problem of a runaway budget was openly discussed. The emphasis now is shifting toward reducing the rate of growth of the Federal expenditures to bring them into line with the rate of growth of the overall economy and increasing the proportion of the Federal budget that is discretionary and controllable. These shifts promise a new dynamics in debates about trade-offs among goals within the domestic sector (one not limited to the traditional butter versus guns argument).

We have moved into the 1970s with even educators doubtful and divided as to what constitutes a rational education policy, with a growing body of information supporting challenges to the effectiveness of the educational system, and with students, parents, and educators all vying for more power and accountability to themselves.

In the 1960s the educational system became political in a new and probably irreversible way. It is highly unlikely that block grants, revenue sharing, the new federalism or any other development will eliminate the fact that the Federal government plays a significant--though not dominant--role in the shaping of America's educational system, and through it, of the nation's future itself. If this challenge is to be adequately met, a new form of policy approach and leadership is imperative. History and a review of present attitudes and behavior of Federal policy makers does not make one sanguine that this new form of policy leadership is emerging.

Framework for Policy Makers

The policy issues of the 1960s, outlined above, introduced a host of discontinuities that set the stage for an even more turbulent period ahead, with the potential of even greater discontinuities. In the following sections of this paper we discuss several patterns which will likely emerge from current trends and the educational policy implications they entail. However, before entering into these speculations it will be useful to examine the following cautions:

(1) The tendency to view the future as a mere projection of past trends (particularly those expressed in statistical or quantitative form) is deeply imbedded in present policy analysis, but the views developed by such methods are likely to be highly inaccurate and misleading. Hence, policies based predominantly upon such relatively narrow analyses are likely to be not only ineffective, but even damaging. Educational policy issues will increasingly be shaped by the impact of external events and trends rather than by the value sets of educational policy makers. On the other hand, no major issue for education has ever or will ever spring up overnight from nowhere. The

discontinuities the educational policy maker must consider have their evolutionary roots in broader societal trends which are generally not deemed to be significant during their formative stages. The future is both a series of continuities and discontinuities. The most important issues are not likely to be discernible within the trends internal to the educational system itself.

(2) Conjecture into the future is an art and not a science. Insistence upon undue rigor (in the sense of quantitative scientific method) will almost assure that the vision cannot accommodate reality as it unfolds. Forays into alternative futures which are to be closely attuned to unfolding realities require one to understand and forecast values, attitudes and political dynamics, as well as demography, technology, and economics.

(3) Because the future is largely the product of today's decisions it is sufficiently knowable to turn speculations about emerging trends into a productive effort. But also for that very reason, the futures which are anticipated at any given time are likely not to be realized in their purest form because of policy modifications taken in that light. The accuracy of forecasts can only be effectively evaluated if one takes into account the adaptations that were made to modify original forecasts or create a different unfolding pattern.

(4) A successful strategy for education must take into account the manner in which various Federal and non-Federal programs for education interrelate; also to be considered are those programs whose impact on education may only be secondary in relation to their primary objectives but whose implications for education are significant nonetheless. This means that adequate policy

analysis must extend well beyond any given policy maker's sphere of influence and control.

Emerging Social and Economic Patterns

To this point we have been discussing emerging trends viewed from the context of the educational system itself. Now we shall provide a different perspective from which to forecast future issues by looking at trends in the broader society which have significance for the educational system.

Major economic challenges lie ahead, perhaps leading to a restructuring of economic institutions with resulting educational implications.

International trends in economic competition, as well as cooperation, may lead to substantial changes in the economy with direct implications for education. Although it is uncertain what direction these changes may take, it is certain that, whatever the specifics, new economic challenges will stimulate educational policy issues which are probably not being looked at, or even thought about, in operational context by today's Federal officials or educators.

The salient features of our present economic profile include a negative trade balance complicating the chronic balance of payments deficits of the last decade. Although the United States experienced its first trade deficit since 1893 in 1971, between 1960 and 1970 America's competitive position significantly worsened. The U.S. comparative advantage had long been based on capital-intensive production and the availability of new products whose production it could monopolize for a number of years. While our major competitors were improving the efficiency of their production methods, labor costs in the United States began to outstrip productivity increases. The U.S. technological

advantage is being narrowed by the ability of other countries to duplicate our technology or products very quickly upon introduction to the market. Between 1960 and 1970 the U.S. share of world exports declined from 16 percent to 14 percent.[6] By 1970 West Germany had replaced the United States as the world's largest exporter of manufactured goods.

A number of factors diminish the ability of the United States to compete effectively in world markets. Inflationary pressures, featherbedding, and a decline of interest in productivity among workers are often cited. However, taxation policies that discourage capital formation and that do not actively encourage corporate investment in new capital equipment are also important, as is the emphasis on maximizing profits as the sole responsibility of business (in contrast to, say, an emphasis on product quality or an emphasis on long-range corporate survival). For example, U.S. steel producers can no longer compete in world markets at least partly because present steel-making equipment is obsolete and cannot match the quality of steel produced by new Japanese mills, or even new mills in the less-developed countries. In addition, there are signs that young people feel less commitment to their jobs than their parents did--perhaps because the lower birthrate removes some of the pressure to make as much money as possible, perhaps because the role of breadwinner is often shared. The immediate effect is a decline in productivity as absenteeism and turnover rates climb. These forces show no signs of disappearing, and their effect is compounded by the lag in civilian research and development which is necessary to the growth of new technology. Thus, it is reasonable to foresee further declines in U.S. productivity and the balance of trade, which will be offset only by overseas investment income and fees for services abroad.

A further economic problem is posed by the steady shift from labor-intensive production to capital-intensive production in both agriculture and manufacturing. This has the effect of releasing labor to the service sector, where it is estimated that 60 percent of the U.S. labor force

is now employed.[7] However, it also has the effect of concentrating production in those products that can be mass produced for mass markets, leaving much demand to be met from foreign production that meets non-mass-market needs. In addition, the shift to capital-intensive production frees workers who are not picked up by the services sector and are left unemployed or in informal types of employment. Pressures to improve the environment result in the further depletion of capital that might otherwise be used to finance new types of production or new businesses.

Between 1960 and 1970 American investment overseas rose from $32 to $78 billion; close to 3,600 U.S. companies have at least one plant abroad.[8] According to the AFL/CIO, multinational corporations result in a displacement of American workers by cheaper labor abroad. According to the Chamber of Commerce, they create jobs at home by increasing the U.S. export market. Wherever the truth may lie, there is no denying the fact that product line after product line has been given over to foreign production.

While the U.S. trade balance has worsened, American dependence on others for its natural resources is increasing. Long-range projections indicate that by the year 2000 we will be importing 30 to 50 percent of our mineral requirements, including oil.[9] Energy consumption is increasing at a more rapid rate than the discovery of new resources. U.S. gas consumption in 1971 exceeded the pace of discovering new reserves for the third time in the preceding four years.[10] Since 1966, U.S. energy consumption has risen at a faster rate than the growth in the GNP. If this becomes a steady pattern, planning assumptions for the consumption of fuel and energy will need upward revision.[11]

The United States faces persistent inflation, persistent unemployment, continuing Federal deficits, further deterioration of cities, soaring social welfare costs, and soaring overhead costs for all areas of the

economy. These will be compounded by a continuing shift to capital-intensive production even in the realm of services. We can look forward, therefore to an increasing rate of technological displacement and unemployment. However, we can also look forward to new attempts to solve these problems at all levels of government, and hence to a period of instability marked by a wide variety of economic programs and policies, and struggles between proponents of different policies.

Indeed, at a much more profound level, the entire rationale and underlying principles of our present industrial system are undergoing serious reassessment. The "Limits of Growth" debate and the call for an "Ecological Ethic" are but the capstones of this process. President Nixon's top environmental advisor has called for a national debate on the desirability of growth.[12]

The foregoing trends suggest several economic futures:

(1) The U.S. economy experiences a decline in economic growth and a gradual but accelerating drift of industries away from this nation. The United States becomes primarily a distribution and service center, largely importing its goods from production bases in other nations. The economy becomes more constrained and general retrenchment is required. A simple understanding of the wrenching implications of this drift is sufficient to make it more than likely that modifications will be made to avert this possibility. As yet, though, this possible alternative has not been taken into account by policy makers.

(2) The American economy remains balanced in terms of production and service capacity. It restores its competitive position through the extensive and rapid exploitation of cybernetic technology. Already we can confidently say that to a far greater degree than is generally realized, cybernation of the

production process has greater potential for providing goods than even the present high capital-intensive production process. But these processes become economically optimal only if we reorganize the entire production, service and distribution systems to exploit such technical opportunities. Past economic inertia has shown more about our ability to organize to prohibit this scale of social innovation than to promote it. The crisis of international economic competitiveness, however, may be the event that breaks this long-term trend.

(3) The entire value base upon which the economic incentives and rationales of the industrial age were built is replaced with a postindustrial concept appropriate for the introduction of a new age. Such a change might be as momentous as that which occurred in the transformation from an agricultural to an industrial era. This transition could be made possible by an affluent society no longer obsessed with the continual accumulation of material goods but with the quality of life and the conservation of the earth's habitat. Societal institutions would adopt as their operating philosophy the manner in which they promote the ability of man to realize self-actualizing values.

Of course, these alternatives are but a few of the plausible trajectories which this society can follow. However, they serve to illustrate that whatever the ultimate direction, some fundamental discontinuities are almost certain to occur in the society at large which will have significant policy implications for education--implications that are probably not part of current analysis in the Office of Education or elsewhere. Depending on which economic scenario unfolds, education may be faced with a serious retrenchment of resources, an emphasis on effi-

ciency of expenditures, greater use of instructional technology, a need for education to become a life-long process to serve either self-actualizing needs and/or to provide massive retraining to large numbers of displaced workers, and the like. If contingency alternatives are not adequately thought through, the social, economic and psychic costs experienced during policy debates that must take place will be greater than necessary and education may not fare as well as it otherwise might have.

A national growth policy will probably emerge and begin to take hold.

Generally, a national growth policy is understood to be a policy which addresses itself to be basic distribution of the population; most discussion of the subject seeks to bring about a set of programs and incentives that would serve to change the present trend of growth away from concentration in only a few huge metropolitan areas.

There is already a growing national dialogue and debate on this issue. A number of polls and other sources show that concentration of population in metropolitan areas is not the desired trend of the majority of the American people.

Stated Preferences: In at least five separate polls, from 1966 to the present,[13] 50 to 55 percent of the sample expressed a desire to live in a nonurban setting. These surprisingly consistent and strong preferences are examined in greater detail in a poll conducted by the Commission on Population Growth:

- Where would you prefer to live?

farm	14%	53% "nonurban" setting
open country not on a farm	20%	
small town	19%	
small city	11%	47% "urban" setting
medium size city	10%	
large city	7%	
surburb medium size city	12%	
surburb large city	6%	
don't care	1%	

- What do you think about the way the population of the country is distributed?

a serious problem	54%
not so serious	30
no problem at all	9
no opinion	7

- Do you think the Federal government should discourage or should not discourage further growth of large metropolitan areas?

should	52%
should not	33
no opinion	15

- Do you feel that the Federal government should or should not try to encourage people and industry to move to smaller cities or towns?

should	58%
should not	33
no opinion	9

Several bills have been proposed and submitted in Congress and hearings will be held in the near future on the need for a national growth policy.

One consequence of the rapid development of growth centers and new towns would be the need for large capital outlays for school plants to accommodate the school-age population, even though the overall, national enrollment rate is leveling off. Any anticipation of acquiring some of the needed educational resources of the future by reducing capital expenditures would thus be frustrated.

Much more fundamental is the probability that such a policy would open major opportunities for innovation in educational systems. For example, even now the new town movement, if properly exploited by educational leaders, could become a major force for educational innovation. For example, planners for the new town of Columbia, Maryland explored new technologies and instructional systems and designed school buildings with maximum flexibility for the future choice of curricula and teacher/student relationships. Educational facilities and programs were designed to be made available to the entire community. Schools were to provide a wide variety of formal and informal learning activities to the community.[14]

In the event of a national growth policy, there will be extraordinary opportunities for developing innovative educational systems not patterned in the same mold as existing systems in the huge metropolitan areas. It would be quite possible to develop a set of educational criteria for alternative growth centers and/or new towns that would, over a period of years, provide a series of innovative models for educational demonstration. It would be interesting to develop at least one major research program to investigate innovative educational models and the manner in which they could be incorporated into the overall structures of new communities or alternative growth centers.

There are no present indications that the decline of the mature and older central cities of the nation can be reversed. It is conceivable that within the next decade or so, a number of American cities will essentially fail and become bankrupt as their revenue base continues to deteriorate with the exodus of businesses and middle class families and as social overhead continues to increase. The present revenue-sharing distribution formulas offer no significant and lasting relief to their basic fiscal problems. Population trends continue to reinforce the growing

concentration of the socioeconomically deprived into central city areas, even though spillovers are beginning to occur in the suburbs. It is likely, therefore, that we will see the continuing emergence of the central cities as concentrations of the socioeconomically deprived and witness the spread of ghettos to the suburbs.

The concentration of the poor in central cities imposes a heavy burden upon their school systems. If compensatory education of any type is continued, an increasingly larger number of recipients will live in central cities. Currently, children under 18 comprise about one-fifth of the U.S. poverty population living in metropolitan areas--and two thirds of these are living in the central cities.[15] Population projections indicate that without a radical population redistribution policy the number of white children in central cities will drop by 9 percent as their families move to the suburbs, while nonwhite children, whose families have higher birth rates, will increase by about 92 percent by 1985.[16] Their numbers will be concentrated in the central cities. Since a third of nonwhite children live in poverty, these figures portend a sharp increase in the number of children requiring special educational services.[17] Those cities with substantial minority populations will thus have a considerable school-age population performing below standard achievement levels as currently defined. If the costs of some form of compensatory education are added to the higher costs of school sites in urban areas, the greater need to rehabilitate old or obsolete plants, the greater number of special programs required to meet the needs of a more diversified population and the generally higher salary levels paid to teachers, the financial burden on city schools will become extremely acute. Should Federal funding of compensatory education decline and court-ordered equalization of expenditures between school districts be implemented, urban educational systems will face a serious crisis. Unless guidelines for equalization of expenditures are very carefully drawn

up, cities, which generally have high per-student expenditures, stand to lose funds.

This situation will be accompanied by the political control of some of the largest of U.S. cities by blacks and other minority groups, although city/county mergers of the type being discussed in Atlanta and Minneapolis may curb this development. If it does occur, a new public debate with respect to accountability and overall responsibility for educational effectiveness is likely to be generated, particularly if an automatic distribution of Federal resources through revenue sharing takes place.

Persistent problems in attaining full employment may change the definition of vocational education and make it more likely that education will be a life-long process. Despite conscious adoption of Keynesian economics by the Federal government, unemployment in the United States persisted at between 4 and 5 percent of the labor force, with higher levels for some groups. With the real possibility of even higher rates of unemployment as automation and cybernation of industry proceed, Americans may have to settle for a formal employment goal of 95 percent, 94 percent, or perhaps even 93 percent of the labor force. This would mean, in effect, abandoning the full-employment goal adopted after World War II.

The finding of A. W. Phillips, a British economist, of an inverse relationship between inflation and full employment is beginning to be more broadly accepted with more emphasis being placed by the current Administration on combating inflation than on reducing unemployment. Herbert Stein, Chairman of the President's Council of Economic Advisers, recently recommended the abandonment of a 4 percent unemployment goal as "counter-productive" on the grounds that maintaining a goal might encourage fiscal and monetary policies that were too strong, causing more inflation, or

ones that were too weak, encouraging complacency about a 4 percent level.[18] The Joint Economic Committee is trying to find out whether unemployment can be permanently lowered to a 2-3 percent level, an assumption which was rarely questioned several years ago.

The implications for education of the abandonment of a full employment policy are several. One possibility is that there will be a shift in emphasis in compensatory education programs from equalizing opportunity in terms of obtaining equal achievement capabilities to facilitating social mobility for the obviously talented in that group. If full employment is not possible without producing politically unacceptable inflation, it becomes less important for societal effort to be exerted towards helping typical "non-achievers" "make it" as adults.[19]

A second possibility, for which evidence is already apparent, is that students will stay in school longer and pursue career-oriented curricula as competition for jobs intensifies. The historical trend has been for greater and greater percentages of students to finish high school and/or enter institutions of higher education. Between 1960 and 1970 the proportion of high school graduates rose from less than 66 percent to more than 75 percent. The increase in the number entering college was even more striking--the percentage rose from about 33 percent to 45 percent.[20] In times of job scarcities, such as the Depression, the tendency to prolong one's education is even stronger.

A third possible pattern is becoming discernible in which young people who might have been expected to go directly on to college from high school instead develop some subsistence skill, such as typing, welding, or computer programming, and use that skill only as a source of income, deriving their feelings of self worth from some other source (life style, religion, field of study, activism, art form, or handicraft). Although this pattern involves a numerically small group, it has important implications for higher education in that those who pursue it tend to seek

specialized courses in particular fields of interest rather than following any degree curriculum, tend to be nomadic, and tend to seek out universities rather than community colleges or junior colleges.

It is unlikely that the trend toward extending educational activity will be reversed. However, there may well be a change in the focus of educational institutions, away from encouraging ever higher levels of academic attainment in order to obtain "higher status" jobs to emphasizing preparation for those jobs available in the economy.

The fourth annual Gallup poll surveying public attitudes on education showed that the public considers education important "to get better jobs," "to get along better with people at all levels of society" and "to make more money."[21] Pragmatic attitudes dominate at the expense of intellectual, aesthetic, or emotional development of the individual. Similarly, it can be shown that students do respond to changes in the labor market in the choice of their fields of study. Community and junior colleges have witnessed the most rapid increase in enrollment of any institutions of higher education in the past decade and the percentage of undergraduate enrollments in occupational programs tends to be highest "in states with well-developed community college systems."[22] Post-secondary curriculum guides in 19 vocational areas--e.g., law enforcement, air control, medical and educational paraprofessionals--are already under development in many states.[23] Even at the university level, there has been a shift in recent years away from pursuing academic PhDs to enrollment in the professional schools--i.e., law and medicine.[24]

The pragmatic bent of the public in general and students in particular will be reinforced by labor market conditions in the foreseeable future. In the past few decades there has been a tremendous emphasis in schools on developing the professional and managerial talent necessary to man the increasingly sophisticated institutions of society. There is mounting

evidence that the jobs which will be coming available as the automation and cybernation of the economy proceeds will require a lesser level of academic and technical competence and that the supply of academic credentials is already at such a high point that less and less of an income differential will result from obtaining further degrees. According to Assistant Secretary of Labor Michael Moskow, there is a "decreasing demand for professionals, diminishing monetary return from degrees and projected increase in service-producing industries."[25] According to the Department of Labor's Occupational Outlook Handbook, jobs requiring professional and technical skills obtained from college training will increase faster than any other occupational group; however, 8 out of 10 jobs will still not require a college degree.[26] The demands of the labor market clearly point to a need for continuing education beyond a secondary school level, but somewhat short of a full college education. Both evolving societal values towards broadening access to institutions of higher education and emerging economic conditions call for continued rapid growth in two-year colleges which offer a broad range of vocational curricula. The Carnegie Commission on Higher Education projects that enrollment in community colleges may reach 11 percent of undergraduate enrollment by 1980. This trend may well be accelerated if the decline in the demand for teachers continues; women will then more likely be drawn to related occupational areas where the projected demand is greater--e.g., health and educational paraprofessionals.[27]

Economic pressures will also serve to make education a life-long process. Millions of persons are signed up in correspondence courses of various types to either learn new skills or update old ones. The percentage of the population between the ages of 25 and 35 enrolled in higher education tripled between 1950 and 1970.[28] External degree programs are proliferating across the country, and the concept of the "open" university and the "university without walls" whereby persons are given credit for a

variety of nontraditional activities--e.g., work performance--are encouraging older persons to either continue or further their education. Dropping in and out of educational institutions is becoming a more respectable practice; though, of course, for such a trend to be sustained, employers must become more tolerant of incomplete academic credentials. To the extent that academic degrees are awarded both on the basis of academic study and various types of community and job activities, credentialing should become less important in distinguishing among job applicants. Employers would become more open to considering a variety of background experiences along with narrower academic attainments.

The prospects for continuing education are also being made more feasible by developments in technology. The development of video cassettes, cable television, and other forms of media technology permit education to be dispersed throughout society at a much lower cost than if it were bound to land and capital-intensive campuses.[29] Technology permits drawing up curricula tailored to individual needs and desires. All these factors, combined with economic pressures for updating skills, will facilitate the transformation of education into a life-long process with almost universal access.

The Leisure Society, if it emerges at all, will do so more in terms of restructured work weeks than reduced hours. There has been much writing in recent years about the dawning of a new age of leisure with a decreasing proportion of the population engaged in economically productive activity. From the preceding pages, it is clear that we do not believe that this is a likely future. Although the work week has steadily decreased in the last century, since 1955 the work week has remained pretty stable at 40 hours. Assuming the best of economic environments, it is unlikely that the work week would decrease beyond the average of 2.5 hours a decade, which has been the trend during this

century. Projecting this rate of decline forward to the year 2000, the work week would still average over 31 hours.[30]

Since we do not assume optimum economic conditions, it is unlikely that even this slow reduction of 2.5 hours per decade will hold. Increased economic competitiveness, unemployment, and the demand for second and third careers on the part of the elderly worker will all act to maintain the longer work week or to encourage moonlighting should additional leisure time become available.

What does seem probable is a restructuring of the work week so that all work is performed within four days--whether it continue to be forty hours' worth of work or some lesser amount. This change has been introduced in a number of private industries and governmental agencies, and has generally met with enthusiasm on the part of both employers and employees. More than 1400 concerns employing one-half million workers across the nation have adopted some form of the 35 to 40 hour, three or four-day work week.[31]

There are a number of educational implications for such a greater concentration of leisure time. Families wishing to optimize their leisure time may insist on the readjustment of the school week to meet their desire for mobility during nonwork periods. Should this occur, a 12-month school year may be necessary to compensate for lost time. Others may use this time to advance their educational interests, increasing the demands placed on institutions of higher education. Many will undoubtedly use leisure time to improve or learn new skills in order to remain competitive in the job market. Some persons may feel threatened or lost if more leisure time becomes available to them, and educators might alleviate this fear by emphasizing self-actualizing values as well as the work virtues in school curricula.

Another pattern of work is visible to some extent, but its importance is difficult to determine. Many people, not all of them young people, prefer temporary work. They work two weeks, or a month, or perhaps two or three days a week, in order to pursue some interest in their free time or in order to travel. This pattern does not necessarily cease when a household is established, since all adult members of the household may follow such a pattern. Increasing emphasis on values of self-actualization may tend to increase the number of people who no longer seek employment as a means of providing a feeling of self-worth but only as a means of income, and thus may increase the number of those seeking temporary work and rejecting long-term commitments. This type of increase in leisure time may be reflected in education in an increase of those seeking short-term (two- or three-week) mini-courses.

Workers seek greater meaning on the jobs. There is a danger of an oversupply of skilled labor unless educational prejudices towards career-oriented values and curricula change. The lengthening of the educational process and improvement in the quality of education has in part contributed to the growing dissatisfaction experienced by workers who feel caught in unchallenging, sterile jobs. They feel and rightly so that their talents are being underutilized and that the broad horizons opened by education are being limited by narrowly conceived job descriptions. Absenteeism and turnover rates are high in industries, particularly in the younger age groups. Dislike of their jobs is also causing many blue collar workers to retire earlier.[32] Boredom is a major factor in job turnover rates.[33] A few businesses and industries have tried to respond by restructuring work weeks, rotating jobs and broadening worker responsibilities. Where these techniques have been introduced productivity has often soared with a reduction in the work force.

On the other hand, should schools continue to produce an oversupply of educated manpower, as has occurred in recent years in some professions, worker dissatisfaction may increase. Those with educational credentials won't always be unemployed; they may bump less academically qualified workers for jobs which don't really require more sophisticated training. The result in such cases will be discontent on the part of both the overqualified and the "bumped" worker, each of whom will feel he is working below his potential.

The Department of Labor has projected a 20 percent increase in the labor force over the next decade, with only 20 percent of the total number of jobs available requiring college or advanced degrees.[34] Yet according to Eli Ginzberg, "the proportion of educated persons seeking employment will be far higher than in any previous decade" with 7 out of 10 new degree recipients expected to enter the labor force.[35] Some economists believe jobs won't be created commensurate to the skills of those job hunting because to take optimum advantage of advanced skills capital formation is required, and capital formation is not occurring at a rapid enough rate to absorb a more educated labor force.[36] Allan M. Cartter estimates that we are producing up to 30 percent more PhDs than will be absorbed by the academic, governmental, and business sectors by 1980. "Even if all junior colleges were converted to four-year colleges, every high school graduate went to college, and every new college teacher hired in the future possessed the PhD, by 1980 a smaller percentage of doctoral degree recipients would be likely to find academic positions than has been true for the preceding 25 years."[37]

The bias towards producing overqualified pools of labor is strong in our educational institutions because of the dominance of middle class

values and personnel who, by example if nothing else, attach importance to extended education in order to obtain the "higher status" jobs. A stigma is inferred for those jobs obtained by high school drop-outs or those who do not choose to extend their education or who opt for a vocational curriculum. In the past several decades this bias has been reinforced by the pace of economic change which required a large pool of professional and managerial talent. However, if labor projections indicating a major need for a somewhat less academically qualified work force are correct, this middle class bias will prove inimical both to the personal happiness of the students and the needs of the economy.[38]

A need exists for a reorientation of values and perhaps curricula. While continuing education seems to be necessary, encouragement needs to be given for enrollment in the two-year colleges and vocational institutes rather than the four-year institutions. If vocational education continues to be part of high school curriculums, a topic about which there is considerable debate, it needs to be broadened to attract the academically talented as well as the "slow learner" which seems to be presently the case. There may be opposition from minority groups who would interpret this change in emphasis as an attempt to relegate them permanently to the lower-paying, lower-status jobs at a time when they are pushing for ever greater educational opportunity. However, it is becoming clear that such a change in emphasis is necessary for students of all races and ethnic backgrounds if a malcontented, malfunctioning work force is to be averted.

<u>There will be a growing pool of elderly and retired persons</u>. A major increase in the social overhead at the retirement end of life is surely in the offing as a result of the continuing decline in the retirement age and increased life expectancies. This fact holds a number of challenges to educational policy.

Currently one quarter of the elderly live below the poverty line. Many become poor on reaching old age. Median incomes of families with an aged head of household was 51 percent that for younger families in 1961, and decreased to 46 percent by 1967.[39] Ralph Nader estimates that one-half of all persons enrolled in private pension plans will not receive any pensions on retirement after all loopholes are closed; one-half of those who do receive private pensions receive less than $1,000 a year.[40] Individuals 45 and older account for 21 percent of the unemployment in the country, but only 4 percent of the enrollees in manpower retraining programs. Those over 55 account for 9 percent of the jobless rate; yet only one percent of the enrollees in manpower programs.[41] Despite the financial problems of the aged, the pressure for early retirement continues. Those who are fortunate enough to be employed are often underemployed despite the results of such studies as as New York State government survey which showed that workers over 65 perform their jobs as well, if not better, than their younger counterparts.[42]

The financial problems of the aged will be magnified in the coming decade by an appreciable increase in the proportion of the population categorized as "elderly." The percentage of older persons is growing at a faster rate than the population as a whole. During the past 70 years total population grew almost three times its size at the turn of the century, but the older population grew almost seven times its 1900 size. In 1900, the elderly comprised 4 percent of the population; currently they represent about 10 percent. If low or declining birth rates continue, projections for persons 65 or older indicate that they may constitute 15 percent of the population by early next century.[43] This is a conservative projection since it does not assume a change in the life expectancy. Since increased life expectancy is a very plausible possibility with advances in the medical/biological sciences, the proportion of the elderly might even rise to a high of 25 percent of the population.[44]

(One of the conclusions of a Life-Span Conference held by the Center for the Study of Democratic Institutions in 1970 was that man could obtain greater control of his life span by minimizing the medical consequences of aging, thus giving him more functional years of life.)[45]

Even if life expectancy does not increase further over the next two decades, or even if it decreases slightly (as a result of continuing air pollution, for example), given the substantial size of the elderly population, the inadequacies of both private and public pension plans in providing adequate incomes, and the increase in the number of healthy and functional years toward the end of life, it almost seems inevitable that the political dynamics will interact to demand extraordinary levels of manpower redevelopment and retraining for the older worker or retiree. Changes in the educational, economic and political worlds will have to take place to accommodate training for second and third careers.

The educational level of the average elderly person will also increase over the years. Given the strong orientation for economic participation in American culture, it seems likely that the elderly person will not be satisfied with an inactive life and will seek either to reenter the work force, like his poorer counterpart, or seek to further his own education for self-actualizing purposes. Either alternative imposes additional burdens on the educational system.

The declining growth of overall Federal expenditures and the attempt to bring the Federal budget under control will create new priority debates among national goals and among domestic programs. We have already alluded to our belief that the overall pattern of Federal fiscal management will be changing in this decade. Rather than an expansive attitude towards ever-accelerating growth of Federal expenditures, we find a growing concern for how to bring these expenditures under control. According to the

Brookings Institution, for the first time in history peacetime spending for civilian purposes (now approximating 13.5 percent of GNP) can be expected to absorb all new revenues generated by an expanding economy, even assuming no new programs.[46] Fiscal dividends without tax increases or reduced Federal spending are no longer in the offing. The current Administration is committed to reducing Federal expenditures rather than increasing taxes. We would thus anticipate that within the next decade the growth of public expenditures will come into alignment with the overall growth of GNP, which means less discretionary choice for domestic priorities with fierce competition among contenders for Federal funds for a "fair share" of the pie. Even if the economy experiences a good rate of growth permitting increased Federal expenditures, the demands on the budget will also increase.

Past budgetary trade-offs at the national level have never seriously dealt with competing priorities, with the possible exception of the debate about space and defense expenditures versus domestic needs. However, we now foresee a period where educational objectives will have to be justified in new ways against health objectives, welfare requirements, demands of the elderly, the need for economic restructuring, and the like. Educators will find that their present objective of increasing Federal support of education from current levels of 8 to 12 percent to as much as 40 percent of overall educational expenditures are likely to be frustrated.

Educators' optimistic reliance on the Federal government is based primarily on the rapid rise in rate of Federal expenditures for education in recent years; they have sextupled just in the last decade.[47] Overall proportionate expenditures for education are twice what they were 20 years ago or 8 percent of GNP.[48] However, a slowdown in the rate of growth, at least in Federal expenditures, has occurred already. Between 1965-68, Federal funding of education rose from $1 billion to $2.3 billion. In

recent years the funding of programs for elementary, secondary and higher education has grown at a much slower rate--in contrast to vocational education. The former is slated to receive $3 billion in FY 73, with an average annual rate of growth of about 5 percent between 1968 and 1973. In this same period of time, Federal spending for vocational education grew at an average annual rate of 16 percent.[49]

The Carnegie Commission on Higher Education has already urged institutions of higher education to plan on reduced rates of spending over the next decade. Higher education can no longer continue doubling its share of the GNP--the rate at which it has been spending in recent years. College costs per student should not exceed the historic rate of increase of 2.5 percent a year; this figure may even have to be lower if priorities are shifted away from higher education.[50] Many institutions of higher education are already experiencing financial difficulties, in part because Federal funding has been reduced.[51]

Present efforts by educators to "Federalize" educational funding appears to stem from a belief that such funding will permit a new burst of growth and create a dependable flow of educational resources year after year. Both assumptions are likely to be proven wrong. Dependence on the Federal budget, should Federal funding reach 40 percent of all educational expenditures, could play havoc with school planning if reallocations within the Federal budget become necessary. An alternative financing strategy for education is strongly suggested. (Note the refusal of the Administration to consider an alternative to ESRS.)

The trend toward decategorization of Federal programs and the distribution of Federal monies will substantially change the present concepts of management and the mechanisms on which the Department of HEW has relied for enforcing its objectives. The present system of HEW program management is based on the principle that Federal funding can

serve as both a carrot and a stick. This strategy rests upon the fact that highly targeted, specific categorical programs provide incentives for the attainment of certain objectives because the Federal funds can either be increased or be taken away depending on whether or not certain objectives are met.

If the trend towards decategorization, formula distribution of block grants, and revenue sharing schemes predominates, this entire concept of program management will have to be reoriented. The opportunity to review detailed plans for disbursement of Federal funds will be eliminated. The entire control function will shift to a post-distribution and post-audit concept to determine whether school systems are using their money legally.

Our history of enforcing such laws is not encouraging. Local political systems, under a liberal revenue-sharing system, are likely to develop a number of major scandals which would lead to a national demand for fundamental reform to put teeth into Federal sanctions. Post-audit concepts will come to stress performance standards as well. Although localities will still have the freedom to determine in which areas Federal funds are to be spent, they will be held accountable for meeting some minimum performance standard. In this manner the twin objectives of decentralizing program control and pursuing national interests can still be met. Policy analysis directed toward an operational system of performance standards with post-audit management-type reviews and comparative analysis between systems could be very helpful in the ensuing years.

Formal education will become a less specialized function--one not limited to schools but shared with other institutions of society. Modern technology has proliferated informational sources to the point where individuals are bombarded with competing philosophies and values to those taught in the schools. Part of the alienation of some contemporary youth from traditional education is no doubt caused by their perception of

education as "irrelevant" to those concerns articulated by media, literature and peer interaction which communications and transportation technology facilitate.

The reduced authority of educational institutions has also been fostered by the realization that some noneducational factors are more important in predicting student achievement than traditional educational resources. Both the Coleman survey on Equality of Educational Opportunity and the Harvard University Faculty Seminar which reexamined the Coleman study results confirmed that the educational and socioeconomic background of a child's family has a greater determining effect on student achievement than any educational inputs, such as school plant, teacher/student ratio, expenditures per pupil, and so on.[52]

Increasingly, educational researchers and reformers are looking to society to aid them in the attainment of educational objectives. In a number of experimental programs, such as Follow Through, outreach efforts are being made to the mothers of pupils in order to teach them the types of responses and activities most conducive to their children's emotional and intellectual development, the assumption being that gains made in school need to be sustained at home if they are to "stick."[53]

Work and various forms of community activities are already being recognized by some schools as relevant educational experiences. To the extent that education becomes a less specialized function concentrated in the school systems, the emphasis placed on credentialism, which has grown enormously in the last few decades, will be lessened.

Private business has begun to play a greater role in educational processes both in terms of providing vocational training and through various forms of performance contracting. Although the latter activity has not yet produced promising results, private educational research will undoubtedly continue and it is not improbable that the private sector

will develop its own schools, first at the higher education level with an emphasis on professional and vocational skills, then to the secondary, elementary and pre-school levels. As parents become more affluent, they opt for the best educational opportunities for their children, whether public or private. The demands for continuing education will also act as a major incentive to the business sector to develop the requisite facilities for training in new skills or updating of old ones.

As formal education becomes more a function of society as a whole than of schools as separate and distinct institutions, the Office of Education has a unique opportunity to assume a leadership position encompassing the total educational function, rather than limiting itself primarily to publicly supported education in existing school systems. Whether educators will be ready and willing to exercise this responsibility is doubtful. If they fail to meet the challenge, the present school system may come to relate to the overall educational process much as the railroads have come to relate to transportation. Once the mightiest, wealthiest, and most powerful of institutions, they have become the weaklings of the transportation system because of an inability to exploit innovative concepts inherent in the automotive and air transport systems. If the schools become as unimaginative as the railroads, they will find themselves increasingly bypassed and a demand will arise that their monopoly in providing formal credentials be eliminated. Ultimately, their monopoly on public funding could be undermined as well.

Teachers, parents and students become stronger constituents to deal with.

Teachers--The activist political climate of the 1960s left its impact on teachers, parents and students. Protest and civil disobedience, encouraged by the civil rights movement, challenge of authority, and the desire for greater personal impact on institutions and events all

interacted to promote dissension among teachers, parents and students against the educational establishment and, sometimes, against each other.

Among teachers this change was most readily apparent in the rapid surge and power of teachers' unions. The membership of the most militant teachers union, the American Federation of Teachers, grew 252 percent from 1962; in contrast, the more conservative National Education Association grew by only 32 percent in the same time period.[54] The number of work stoppages for teachers and librarians grew from none in 1958 to a high of 187 in 1970; in 1971 there were 135 such stoppages involving 551,400 idle man-days.[55] Public employees' unions are the fastest growing in the country and of that group, teachers account for the largest number.[56] The increasing power of teachers' unions can be seen from the fact that in 1960 no comprehensive negotiating agreement existed between teachers' organizations and school boards; ten years later half the states had enacted legislation mandating negotiations, mediation, fact-finding, written agreements and grievance procedures.[57] Similarly, salaries for teachers rose disproportionately to the average annual salary increases for labor between 1961 and 1970; salaries for teachers and college faculty rose 55 and 57 percent respectively; that for labor in general increased 48 percent.[58]

There is little doubt that teachers' unions will become still more powerful. The NEA and AFT, traditionally strong competitors, are merging at the state and local level. Teachers in New York, Louisiana and several other places have already voted for such a merger to take place. It seems only a matter of time before the unions will merge at a national level in response to legislative assaults upon education and the need to lobby more effectively at higher levels of government. Their common interests appear more than adequate to overcome their professional differences. One estimate indicates that a merged teachers' union can eventually represent up to 3.5 million teachers and educational personnel, making

it the largest union in the United States.[59] If it were affiliated with the AFL/CIO, as the AFT currently is, it would be in a position to exert major influence on labor's policies on educational matters.

The probable effects of a greatly strengthened teachers' union are several. "If teachers achieve increased political influence, they are more likely to achieve a legal right to strike, their bargaining power is thereby enhanced, and they are more likely to achieve concessions at the bargaining table."[60] Bargaining is more likely to take place at regional or state levels of government, lessening the role of local school boards. This would tend to reduce the possibilities for community control and parental involvement. United unions are also more likely to undergo clashes with community groups who threaten tenure rights and working conditions. Such clashes have already occurred in Newark and New York City where the debate was intensified by the race issue between the predominantly white unions and predominantly black communities.

Teachers' unions have already expressed their opposition to experimental innovations such as incentive payments for teachers and educational vouchers. They continue to support further reduction of the student/teacher ratio even in the face of studies that show no educational benefit to the student from such a reduction.

While teachers' unions may present an obstacle to attempts to change various aspects of the teacher/student relationship, management, faced with rising costs, will have a greater incentive to increase educational productivity. In a strong bargaining situation, school administrators can counter probable union demands for increased salaries and improved working conditions with their own demands for greater productivity and accountability. Studies directed to developing effective indicators of teacher performance and determining which factors most affect teacher performance could prove highly useful in negotiations between teachers and school officials.

Parents--Parents too were caught up in the movement to decentralize power and place it back in the hands of the people. The conditions of discontent already existed as a result of the poor performance on the part of many schools in educating children, the realization that education plays a crucial role in providing the credentials for social and economic mobility in this society, and the general alienation of the schools from the community caused by increased professionalism and bureaucratization. The combination of these three factors made for explosive school/community relations.[61] Although some criticism was directed at the objectives or rationale of the schools, most parents were concerned that schools no longer seemed to know how to reach these objectives for their children.

Parents and activists proposed school decentralization and community control--programs which have been implemented in a number of areas--and demanded greater willingness on the part of the school system to provide parents and students with an element of choice. This has been done by some school systems through the development of free schools or schools without walls--e.g., the Parkway Experiment in Philadelphia. Others have shown a willingness to experiment with the voucher system. In some schools the community is being brought into the classroom through the use of teaching aides and other paraprofessionals. That parents can no longer be taken for granted is attested to by the growing willingness of parents to seek alternatives to the public school system if their children's needs are not met. In New York State parents have created about 120 "independent" schools of their own for neighborhood children and are attempting to win official recognition for them.[62] As greater disposable income becomes available to parents, the possibility of seeking alternative educational institutions for their children likewise increases. If schools do not maintain or gain the flexibility to innovate or produce educational results, the practical monopoly of the public schools may be seriously challenged. It is significant that in 1970 the Commissioner of

Education was given the power to require local educational agencies to involve parents in Federally funded programs if he thought it beneficial. All local school districts obtaining Title I funds for compensatory education must now establish parent councils.

Another area that appears to be changing involves the aspect of accountability. Parents have long accused schools of teaching wrong, dangerous, or misleading concepts to their children. However, just recently, a suit was filed in San Francisco Superior Court in which a high school graduate is suing for damages on the grounds that he was allowed to graduate even though he had never learned to read beyond a fifth-grade level. It is possible that what used to be considered learning failures may come to be considered teaching failures, with a consequent shifting of responsibility, and perhaps greater caution in making any change.

Although many theoretical and practical problems are involved, the search for effective measures of educational achievement and the resources most directly correlated to desired results will continue. A real danger here is that only those educational outputs will be chosen which lend themselves to easy measurement--i.e., the cognitive skills--to the detriment of the more nebulous objectives of education--e.g., development of social skills, values of tolerance and democratic expression, and the like. Parents of minority children have been particularly outspoken in their opposition to educational reforms that appear to place reduced emphasis on acquisition of reading, writing, and arithmetic skills.

Strong teachers' unions and strong community groups make for potentially explosive relationships. The cases of Newark and New York City have already been cited. The rapid increase in the costs of education and teachers' salaries, in particular, with no readily apparent gain in productivity or quality, is likely to become a major bone of contention

between communities and teachers' unions. In Detroit, voters have twice rejected property tax increases to enable schools to finish this school year. In this case, teachers backed down by agreeing to a new contract in which no new salary increases were requested.

Students--Although students have lately been quiescent in contrast to the upheavals of the 1960s, they too have become a constituency that can no longer be taken for granted. The prolongation of the educational process and the resulting deferment of adulthood and exposure to the world of work and adults aggravates the "generation gap" and emotional frustrations. A case has been made that our educational system, through its segregation of age groups and increased professionalization of the teaching staff, prolongs emotional immaturity and ignorance of the workings of society.[63] There is little doubt that educational institutions will have to be ready to cope with both the volatile emotions and the real needs of their student body. One response can be greater teaching to the individual and the tailoring of curricula to differing needs and objectives. Some institutions of higher education are already becoming more tolerant of students dropping in and out of school to extend their studies in other manners. Proponents of work-experience programs--essential components of the Career Education policy--argue that work is as relevant an educational experience as the traditional curriculum and one for which academic recognition should be extended.

The politics of busing and compensatory education become more difficult once educational problems are popularly perceived as class, rather than race, issues. Busing and, to a lesser extent, compensatory education, have been closely identified with the issue of race when the real problem was the handicaps imposed by low socioeconomic family backgrounds rather than race per se. Of course, the sponsors of Head Start,

Title I and other compensatory education programs were well aware that income levels, not race, are much more relevant in predicting children's achievement levels; however, to some extent, the political support for compensatory education was made possible by the desire to ease racial tensions--e.g., the Administration recently proposed additional funds for compensatory education as an alternative to busing. As the pattern of concentration of the socioeconomically deprived in metropolitan areas strengthens, it will become clear to the general public that the problem is primarily one of class rather than race. Already a growing number of minority middle class are following the migrations of their predecessors out of the older, central cities.

The realization that the problems to which busing and compensatory education address themselves are those of class rather than race has profound implications for the politics of both busing and compensatory education. Although the poor constitute a numerically much larger number of persons than the black population, the white poor traditionally have been reluctant to unite with blacks into a political coalition to promote their common interests. It is doubtful that political pressures from the poor will be an effective catalyst to further either the objectives of busing or compensatory education--unlike blacks whose activists for a time were successful in winning sympathy and political support, in part because their numbers were heavily concentrated in key political areas.

Housing policies have fostered socioeconomic segregation to the point where there is little interaction between various socioeconomic groups. Yet according to educational research, the poor learn best when they are integrated into a middle-class learning environment where teacher expectations and student motivation are higher.[64] According to James S. Coleman, beneficial results in terms of good achievement levels for everyone are obtained when a student body is integrated up to 40 percent with lower income students.[65] It is important that the majority of the school

remain middle class since the majority sets the pace and tone of the school. Duluth, Minnesota, which has a very small minority population, is currently drawing up plans for socioeconomic integration under orders from the state Board of Education. According to one Board member, class integration "involves in the northern part of the country four times as many people as if you were integrating on a racial basis."[66] Duluth found that its tipping point, in terms of reducing achievement levels, was reached when more than 30 percent of the schools were integrated with students of lower socioeconomic backgrounds. Thus, an educational argument for busing can still be made, though it is questionable whether the issue would be more palatable once it is perceived as a class problem rather than race. The prospects of busing in much larger numbers of poor children, instead of just minority children, will probably not prove attractive to some middle-class parents, although others may welcome it. Coleman proposes an interesting alternative--i.e., that education take place in a variety of locales so that at least some activities can be racially and "socioeconomically" integrated.[67]

Attempts to assure equality of opportunity will shift from seeking comparability in achievement levels to more individualized curricula and teaching methods, accompanied by an erosion in the rationale for compensatory education. During the past two decades we have witnessed a shift in concern from assuring opportunity for the gifted student to providing equality of opportunities to everyone, with particular focus on disadvantaged children.

Current emphasis still assumes that equalization of educational opportunity is directly related to equalization of educational resources. Yet accumulating evidence indicates that equalization of spending--or, for that matter, even a disproportionate array of resources in favor of the disadvantaged child--will still not achieve educational equality in terms

of achievement levels.[68] Much reform effort has been directed to obtaining Supreme Court ratification of Rodriguez v. San Antonio School District which would have made disparities in educational expenditures between school districts unconstitutional. If Rodriguez had been affirmed and resource disparities eliminated, the ineffectiveness of simply equalizing educational expenditures would have become increasingly clear, particularly if comparability in achievement levels were assumed to be the result. Many studies that have already been conducted to test the success of various compensatory education programs show that school costs do not presently affect these cognitive skills being measured.[69]

Even assuming that educational spending could make a difference in achievement levels, schools have been further indicted recently for the lack of relationship between school achievement and general life chances.[70] It is alleged that education does not substantially facilitate equal opportunity in the society at large, a long-cherished assumption of Americans in general and educators in particular. If this is the case, and since the diversity of genetic and environmental endowments makes equal achievement in the context of educational objectives a virtually impossible goal, equality of educational opportunity may come to more realistically revolve around the need to develop minimum competencies in cognitive and affective skills. Rather than raise disadvantaged children to some ideal average, the emphasis would be on providing training to assure some level of adequate functioning in society. This objective might be attained by providing a variety of learning environments and curricula suitable to individual needs.

THE EMERGING CLIMATE FOR EDUCATIONAL POLICY ISSUES

To this point we have been discussing trends and patterns and some of the selective issues implied for educational policy. We now combine these into specific policy environments educational leaders may come to expect during the forthcoming decades.

Public Confidence

There may be a wider spread belief that the educational system is failing to produce expected results with the danger of a punitive public backlash, particularly if the Federal government's proportion of educational expenditures is greatly increased. This discontent can then make itself felt through budget priority debates.

A public decline in confidence will be preceded by a decline in the morale of educators themselves. Already doubt has been cast on many educational assumptions. Despite extended research, little knowledge exists as to what educational inputs will consistently and unambiguously affect educational achievement.[71] The evidence is building up that, in fact, no major input shows consistently significant results. One of the best documented of research findings is that lowering of student-teacher ratios does not affect student performance.[72] The New York City School Fact Book showed an inverse relationship between per pupil expenditures, student/teacher ratio and student achievement.[73] Yet classroom progress continues to be measured by further declines in the student/teacher ratio; the number of teachers is still increasing at a faster pace than school enrollment.[74] New York City and Washington, D.C. have among the highest per pupil expenditures in the country, yet both show declining achievement rates in recent

years.[75] The fact is that little is known about the efficiency of school expenditures, making it extremely difficult to rationally allocate budgetary resources.

The evidence is likewise inconclusive as to the educational effects of racial desegregation.[76] It has become increasingly difficult to justify the huge expenditures on compensatory education, given the paucity of incontestable results. The importance of noneducational factors in determining student achievement raises the question of whether a redirection of resources towards income maintenance, health and housing measures might not be wiser than a continued increase in educational expenditures in order to achieve even educational objectives.

Federally funded research and development in education has been largely ineffective, not because of lack of funds and talented personnel as is widely believed, but because of the faulty assumptions on which this research is based, assumptions taken from successful models developed for industry and agriculture.[77] These assumptions are that:

(1) Applied and decision-oriented research and development in education would lead to the creation of new products and techniques immediately applicable at the local level;

(2) Such products can be disseminated by agencies separate from either the producers or consumers;

(3) An infusion of funds into schools serving the educationally disadvantaged who adopt these products will result in significant gains in educational achievement;

(4) Such gains in educational achievement will significantly increase the life chances of the disadvantaged.

There is reason to believe that the way public education and other societal institutions are structured makes these assumptions highly

doubtful.[78] Educational researchers tend to address each other rather than the educational market in which their products are to be adopted. A need exists to develop a research model suitable for the needs of the educational system. The creation of the National Institute of Education offers a splendid opportunity to develop such a model; however, a new approach will only be successful to the extent that sharp departures are taken from past practices.

Reordering Educational Priorities within Existing Resources

Demographic patterns clearly indicate the need for shifts in the allocation of educational resources among the elementary, secondary, and post-secondary schools comprising the educational system. In recent years the birth rate has declined remarkably, even though a much larger number of women of child-bearing age now exists. This means that the school capacity expanded to accommodate the baby boom will be underutilized at the elementary and secondary levels as those children born during the 1960s progress through the school system. A decrease in the college-age population and, consequently, in full time college enrollment, can be expected by the 1980s, although if education does become more of a life-long process, this decrease might be compensated for by increasing numbers of older persons furthering their studies, as well as larger proportions of high school graduates going on to college. In any case, we think current trends indicate the likelihood of a shift within higher education, as well, away from four-year institutions to the two-year colleges and vocationally oriented schools.

At the same time there should be an increase in demand for preschool centers and nursery schools. The number of 3- and 4-year-olds enrolled in formal preschool institutions rose from 1 in 10 to 1 in 5 between 1965 and 1970.[79] This trend has been influenced by parental acceptance of

educational and psychological research that shows the emotional and intellectual gains possible in early childhood, and nonpragmatically, by the shift of women into the labor force. Should educationally oriented child care programs become the norm, the priority battle within the educational budget would become even more fierce, over and beyond the costs of early childhood programs themselves. The Head Start and Follow Through experiences suggest that a restructuring of the elementary school program may be required if gains made in preschool programs are not to be lost.

A 1950s- or 1960s-oriented educational psychology would essentially assume that this restructuring of priorities can be accommodated through the growth of educational expenditures. We seriously challenge this viewpoint. President Nixon has committed the Federal government to little if any program increases in the Federal budget and local taxpayers have not shown themselves receptive to further increases in property taxes. At the same time, recent election returns suggest that voters' attitudes are no more favorable to replacing property taxes with what may be more equitable solutions to the school-financing problem.

It will become increasingly necessary to achieve this restructuring without unusual growth and within the context of a leveling off of the growth rate in expenditures for education. This implies a real priority battle within the various segments of the education system itself. Unfortunately, the human resources and facilities required at the different educational levels are not mutually transferable. An economic analysis which assumes supply need only be adjusted to changing demand is likely to prove fatally wrong. The supply of educational resources is largely inelastic--aggravated by the bureaucratization and basic inertia of the different subsystems. As the movement for teacher unionization strengthens, teacher/pupil ratios and the retention of existing teachers in the school system will become as important a part of labor negotiations as are salary increases.

Present policies all seem to share a common assumption that past patterns of growth will continue indefinitely. These are common pitfalls of national policy; we have seen the same assumptions made in defense, space, basic science, and technology. However, a decline in the rate of increase for educational expenditures, and perhaps even a leveling off of funds, may follow the same pattern experienced by the scientific and research communities in the middle 1960s. Much could be learned by assessing the dislocations that occurred since the two systems--i.e., science and education--are closely related. A very useful policy analysis would be one which examined present policies on the assumption that growth in educational expenditures would level off and that Federal financing for educational purposes would become increasingly unstable from year to year in the priority debates which could emerge in the latter portion of this decade. Present policies should be evaluated in such a strategic context. However, to our knowledge, even the strategic context which would make such an evaluation possible is not being developed.

Education Becomes Less Concentrated in the Existing School System

Although the acquisition of skills and bodies of information that we are used to thinking of as "education" will become more pervasive, it is likely that even formal, classroom education will cease to be a monopoly of traditional educational institutions. The function of education will increasingly be shared with private industry, proprietary schools, the media, and governmental institutions. And as the fraction of education received through formal school declines, informal education will thrive. Awareness is growing that the educational problem is not soluble in the classroom, because it is an aspect of the total environment. Education can function effectively only as a component of that environment. In the case of compensatory education, this implies a major shift in orientation

away from solving the educational problems of the disadvantaged solely in the classroom; instead, attention will be focused on the environmental factors that impact on educational attainment.

POLICY INITIATIVES FOR THE OFFICE OF EDUCATION

If one takes seriously the emerging patterns discussed here, four signal factors must be faced:

(1) The present framework and process for educational policy formulation are sorely inadequate in concept and method.

(2) Since this inadequacy does not stem from organization but from faulty conceptualizations, the present reorganizations, i.e., National Institute of Education and the new position of Assistant Secretary for Education, will provide no remedy, although these reorganizations can be fully justified on other grounds.

(3) Recommendations for needed initiatives should not settle for marginal or even massive program adjustments. Rather such initiatives should seek a basic reconceptualization of the institutional sectors and programmatic activities suitable for a new American educational process--one that interfaced effectively with the larger environment of which education is a part. This reconceptualization should take into account current trends in technology, the economy, value structures, and the general society.

(4) Unless such a reconceptualization occurs in concert with a new form of educational statesmanship, the American educational system may suffer serious and needless damage entailing unnecessary social, economic, and psychic costs for educators, students, and the nation at large.

In view of this situation we have chosen to avoid a listing of programmatic responses which would only be inadequate to the challenges ahead and propose instead the following four initiatives in policy formulation. They more adequately illustrate the approach needed for the formulation of educational policies adequate for the next two decades:

(1) A major research effort should be launched with the objective of determining the alternative directions American society may take and the values, roles and forms the educational process could assume in order to facilitate or avert the unfolding of particular realities. This effort should address the following central questions:

(a) What do the behavioral, biological, and social sciences tell us about the needs and capabilities of man?

(b) If we act on what the sciences tell us today, what damage do we risk if the scientific result turns out to be wrong on further study?

(c) How do we determine what values we wish to support through the educational process?

(d) What societal groups require special services and how can education play a role?

(e) How does the educational process complement broader societal forces and activities?

(f) What resources, whether in the form of knowledge, manpower, institutional support, or money can we amass to transform the educational process?

(g) If we were to start over again, what kind of educational system would we design?

We are proposing a moral inquiry requiring a new, and as yet only crudely developed, methodology and a process for synthesizing the descriptive knowledge of the empirical sciences with the prescriptive and subjective values of a pluralistic society. All of this information would then be combined into a feasible set of policy initiatives. It is not likely that large grants to the traditional social sciences would result in the needed policy innovations. We do, however, believe the task to be feasible if attacked carefully, boldly, and creatively.

(2) A basically new strategy for attaining the objectives of compensatory education is required if they are ever to be reached. This strategy should assume that the assumptions behind current programs are wrong. Compensatory education objectives cannot be achieved in the classroom alone; rather, a total environmental approach is required. The time has come for educators to acknowledge this reality and structure their activities to complement broader societal efforts if they are to achieve even narrow educational objectives. The end product should be a set of workable alternative strategies and programs together with the means for proceeding from the present trajectory to a new trajectory.

(3) Even though enrollment levels may stabilize, the demand on education for broader opportunities in higher education, early child care programs, capital outlays in new population centers and other programs will greatly strain the public purse at a time when other social services will be demanding more as well. It is unlikely that educators' expectations for very much larger support will be met. Contingency plans should be developed around the assumption of little or no growth in funding for education and an instability in those funds (especially Federal) that are allocated for education.

(4) Several detailed alternative scenarios should be worked out of what the American economy and society will probably look like two decades from now in terms of population levels and distribution, age composition, types and locations of economic institutions, job skills required, and so forth. This would permit either the selection of the most likely scenario as a framework for policy making, or an analysis to find the factors likely to be common to all probable scenarios. The results of such studies could be used to guide effective coordination of manpower policies with school curricula, capital outlay requirements, and educational philosophy as to the objectives and role of education.

Such a set of analyses should go a long way towards assuring that educational policy makers are not caught unawares by societal developments but will instead be in a position to offer imaginative alternatives to pressing problems. Otherwise, the educational system, as we know it, may be one of the earlier victims of the obsolescence that threatens many institutions and individuals.

REFERENCES

1. Eli Ginzberg, "The Outlook for Educated Manpower," The Public Interest, Winter 1971-72, p. 104.

2. ibid., p. 107.

3. Allan M. Cartter, "Scientific Manpower for 1970-1985," Science, 172, April 9, 1971.

4. Susan B. Miller, "Colleges Discourage Would-Be Teachers, Citing Job Shortage," The Wall Street Journal, Feb. 8, 1972.

5. Irene A. King, Bond Sales for Public School Purposes, 1970-1971, Washington, D.C., U.S. Department of Health, Education and Welfar , 1972, p. 2.

6. Newsweek, April 24, 1972, p. 66.

7. Peter G. Peterson, "The U.S. in the Changing World Economy," prepared for the White House Conference on the Industrial World Ahead, Feb. 7-9, 1972.

8. Newsweek, op cit., p. 66.

9. Peterson, op cit.

10. "New Natural Gas Finds Again Trailed U.S. Use in '71, Trade Units Says," The Wall Street Journal, May 29, 1972.

11. Paul McCracken, speech before the Independent Petroleum Association of America, delivered in Dallas, Texas, Nov. 2, 1970.

12. Gladwin Hill, "Nixon Aide Urges Debate on U.S. Growth," The New York Times, Mar. 30, 1972

13. See: Gallup Polls, American Institute of Public Opinion, Mar. 23, 1966, May 5, 1968, Feb. 19, 1970. Also see the poll done for the Public Broadcast Environmental Center for Louis Harris, Nov. 1970. Finally, note the poll in the text done for the Commission on Population Growth by the Opinion Research Corporation, 1971.

14. Alternative Educational Futures in the United States and Europe, Paris, Organization for Economic Cooperation and Development, 1972, p. 100.

15. Anthony Downs, Who are the Urban Poor?, Committee for Economic Development, 1970, New York, New York, p. 3.

16. ibid., p. 55.

17. ibid., p. 55.

18. Eileen Shanahan, "Nixon Aide Discards Idea of Jobless Goal," The New York Times, Oct. 27, 1972.

19. David C. MacMichael, The Abandonment of Full Employment Policy and the Implications for Educational Policy, Stanford Research Institute, Menlo Park, California, Oct. 1972.

20. Kenneth A. Simon and W. Vance Grant, Digest of Educational Statistics, 1971, Washington, D.C., National Center for Educational Statistics, Dept. of Health, Education and Welfare, 1972, p. 8.

21. Fred M. Hechinger, "Education for Material Gains," San Francisco Sunday Examiner & Chronicle, Sept. 24, 1972, p. 30.

22. New Students and New Places, The Carnegie Commission for Higher Education, Berkeley, California, Oct. 1971, p. 55.

23. Vocational Education: Innovations Revolutionize Career Training, National School Public Relations Association, p. 36.

24. Carnegie Commission, op cit., p. 59.

25. Michael Moskow before the New Jersey Association of College Administration Counselors, quoted by David MacMichael in Occupational Bias in Formal Education and its Effect on Preparing Children for Work, Stanford Research Institute, Menlo Park, California, June 1972.

26. Neal Rosenthal, Occupational Outlook Handbook in Brief, Washington, D.C., U.S. Department of Labor, Bureau of Labor Statistics, 1972.

27. Carnegie Commission, op cit., p. 55.

28. Carnegie Commission, op cit., p. 3.

29. The Fourth Revolution, Instructional Technology in Higher Education, The Carnegie Commission on Higher Education, Berkeley, California, June, 1972.

30. "Comprehensive Career Education Models: Problems and Prospects," Educational Policy Research Center, Syracuse University Research Corporation, Syracuse, New York, June 15, 1971, p. A-2.

31. Andrew H. Malcolm, "More U.S. Companies Reducing Workers' Boredom," The New York Times, May 15, 1972.

32. Thomas Lindley Ehrich, "Job Pressures Induce Blue-Collar Workers to Opt to Retire Early," The Wall Street Journal, May 22, 1972.

33. Sam Zagoria, "Rebellion and Reform," The Washington Post, Feb. 6, 1972.

34. Occupational Outlook Handbook, 1970-71, Washington, D.C., U.S. Dept. of Labor, Bureau of Labor Statistics, 1971.

35. Ginzberg, op cit., p. 107.

36. Corporate Decisions for Social Progress," Social, Cultural & Economic Changes in the '70s: Interpreting the Trends, edited by Eugene D. Jaffe, p. 79.

37. Cartter, op cit.

38. David MacMichael, Occupational Bias in Formal Education and its Effect on Preparing Children for Work, Stanford Research Institute, Menlo Park, California, June 1972.

39. "Research and Demonstration," 1971 White House Conference on Aging, Washington, D.C., p. 11.

40. William V. Shannon, "Great Pension Issue," The New York Times, Aug. 10, 1972.

41. "A Report of the Special Committee on Aging," U.S. Senate, Feb. 19, 1971, p. 50.

42. David A. Andelman, "Job Survey Finds Aged Work Well," The New York Times, Sept. 22, 1972.

43. 1971 White House Conference on Aging, op cit., p. 12.

44. ibid., p. 13.

45. ibid., p. 30.

46. Charles L. Schultze, Edward R. Fried, Alice M. Rivlin, Nancy H. Teeters, Setting National Priorities: The 1973 Budget, Washington, D.C., The Brookings Institution, 1972, p. 409.

47. W. Vance Grant, "Education's New Scorecard," American Education, Oct. 8, 1972, p. 7.

48. Digest of Educational Statistics, 1971, Washington, D.C., Dept. of Health, Education and Welfare, National Center for Educational Statistics, 1972, p. 21.

49. The Federal Budget: Its Impact on the Economy, Fiscal Year 1973. New York, The Conference Board, 1972.

50. William K. Stevens, "Carnegie Unit Bids Colleges Cut Outlay 20% by 1980," The New York Times, June 16, 1972.

51. John Anthony Brown, "A New Tidal Wave," Vital Speeches, June 1, 1971.

52. See J. S. Coleman et al., Equality of Educational Opportunity, (Washington, D.C., Dept. of Health, Education and Welfare, Office of Education, 1966); Frederick Mosteller and Daniel Moynihan (Eds.), On Equality of Educational Opportunity, (New York, Vintage Books, March 1972).

53. Eleanor E. Maccoby and Miriam Zellner, Experiments in Primary Education, Aspects of Project Follow-Through, (New York, Harcourt Brace Jovanovich, Inc., 1970).

54. Internal working paper prepared by Al Ferri, Stanford Research Institute.

55. Work Stoppages in Government, 1958-1968, Report 348, (Washington, D.C., U.S. Dept. of Labor, Bureau of Labor Statistics, 1970), p. 13; and conversations with the Office of Work Stoppages.

56. ibid., p. 4.

57. Annual Educational Supplement, The New York Times, Jan. 9, 1969.

58. Ferri, op cit.

59. Myron Lieberman, "The Union Merger Movement," Saturday Review, June 24, 1972, p. 53.

60. ibid., p. 55.

61. Thomas F. Green, "Schools and Communities," Harvard Educational Review, 39 (Spring 1969).

62. Susan S. Egan, "The Independent Public Schools," Current History, Aug. 1972.

63. Ed Wynne, A Proposal to Plan to Develop a New Model for Youth Learning and Socialization.

64. James S. Coleman, "Class Integration - A Fundamental Break with the Past," Saturday Review, May 27, 1972, p. 58.

65. ibid., p. 59.

66. Richard L. Bye quoted by Dick Hubert, "The Duluth Experience," Saturday Review, May 27, 1972, p. 56.

67. Coleman, "Class Integration," op cit., p. 59.

68. See: H. Averch, S. J. Carroll and T. S. Donaldson, What Do We Know About Educational Effectiveness?, Rand Corporation, July 1971; J. S. Coleman et al., Equality of Educational Opportunity, Dept. of Health, Education and Welfare, 1966; Christopher Jencks, Inequality, Basic Books, 1972; H. J. Kiesling, Multivariate Analysis of Schools and Educational Policy, Rand Corporation, 1971; Frederick Mosteller and Daniel Moynihan (eds.), On Equality of Educational Opportunity, Vintage Books, 1972.

69. For a summary of major studies focusing on compensatory education and the relation of educational inputs to achievement levels see The Efficiency of Educational Expenditures for Compensatory Education - An Interpretation of Current Evidence, by Thomas C. Thomas and Jurgen Muller, Stanford Research Institute, May 1972.

70. Jencks, ibid.

71. Averch, Carroll and Donaldson, op cit.

72. Thomas and Muller, op cit.

73. Cited by Roger A. Freeman, "Should Local School Support be Abolished?", Vital Speeches, May 15, 1972.

74. Grant, op cit.

75. Freeman, op cit.

76. Coleman et al., op cit.

77. O. W. Markley, Thoughts on the Evaluation of OE-Sponsored Regional Laboratories and R&D Centers, Stanford Research Institute.

78. ibid.

79. The Wall Street Journal, June 8, 1972.